

Wed Am

MOVING MAP DISPLAY

1. For the proposed resolution of 200 lines per inch (of a 20" x 24" map) and full color, or at least 3 colors, how many square inches of holographic recording is necessary? How many records per unit?

$\frac{1}{2}$ " x $\frac{1}{2}$ " with good optics - probably less than $\frac{1}{2}$ " x $\frac{1}{2}$ " 10mm x 12mm
 NASA 3000 frames 1500 inches could be used to reel
 1200 ft of tape = 28000 frames 16mm film

2. How would you propose making the map? At what copy input size for a 20" x 24"?

work from orig. prefer the orig. to be 12 1/2" x 12 1/2"
 have to make color separations, etc. room work
 with any size, present size is 12 1/2" x 12 1/2"

3. How much energy is required to produce master latent image?

10mw laser with HeCd laser int takes 2 sec. can
 use larger laser & cut down approx time
 50 mw is available.

4. What screen display size do you have in mind?

present $8\frac{1}{2}$ " x $8\frac{1}{2}$ " 500 lines resolution
 would use 17" x 17" with 1000 lines resolution

5. How would you zoom - the map? - the data?

part of the technology
 turret lens with fixed lenses with x-y film
 motion or design zoom lens. ~

6. What would the screen resolution be?

screen would be 1000 TV lines for plasma screen
 the screen needs is 10 line pairs/mm

7. What are the cost projections for making the moving map master versus film master?

*4 or more copies the Hologram is cheaper -
less than 4 the film is cheaper.*

8. What optical problems do you anticipate in producing the master?

*Need a stable Holographic table in a
controlled environment*

9. Environmental problems (vibration, dust)? (operational)

Much easier than film

10. What are the registration problems (data to map)?

*Play back - can make as accurate as required
it is a fraction of the plasma: 1000 lines
1 part in 4000*

11. System development costs and availability?

NASA



not a complete setup STAT